



# SEQUENCE LISTING

<110> Wary, Kishore, K.  
Huntsoe, Joseph O.

<120> Uses of Vascular Endothelial Growth Factor  
and Type I Collagen Inducible Protein (VCIP)

<130> D6563

<140> US 10/812,238  
<141> 2004-03-29

<150> US 60/458,164  
<151> 2003-03-27

<160> 42

<210> 1  
<211> 15  
<212> PRT  
<213> Unknown

<220>  
<221> CHAIN  
<223> peptide used to raise anti-VCIP-cyto-C16  
antibody

<400> 1  
Leu Ser Pro Val Asp Ile Ile Asp Arg Asn Asn His His Asn Met  
5 10 15

<210> 2  
<211> 20  
<212> PRT  
<213> Unknown

<220>  
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<223> peptide used to raise anti-VCIP-RGD antibody

<400> 2  
Glu Gly Tyr Ile Gln Asn Tyr Arg Cys Arg Gly Asp Asp Ser Lys  
5 10 15  
Val Gln Glu Ala Arg  
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<210> 3  
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 <223> forward primer for VCIP  
  
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 ggaggatccc tcgcgccgca gccagcgcca tgc 33  
  
 <210> 4  
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 <400> 4  
 gtggcaccta catcatgttg tgggtg 25  
  
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 <400> 5  
 cttcctgaaa tgcgtcaaca cc 22  
  
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 <211> 22  
 <212> DNA  
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 <400> 6  
 tcatagctgg gaaaactgag gc 22

<210> 7  
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 <223> forward primer for beta-actin  
  
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 ggctgtgcta tccctgtacg cc 22  
  
 <210> 8  
 <211> 22  
 <212> DNA  
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 <223> reverse primer for beta-actin  
  
 <400> 8  
 gggcagtgat ctccttctgc at 22  
  
 <210> 9  
 <211> 23  
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 <223> forward primer for GAPDH  
  
 <400> 9  
 ggtctcctct gacttcaaca gcg 23  
  
 <210> 10  
 <211> 24  
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 <223> reverse primer for GAPDH  
  
 <400> 10  
 ggtactttat tgatggtaca tgac 24

<210> 11  
 <211> 6  
 <212> PRT  
 <213> Unknown

<220>  
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 <223> a peptide containing RGD sequence

<400> 11  
 Gly Arg Gly Asp Ser Pro  
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<210> 12  
 <211> 9  
 <212> PRT  
 <213> Unknown

<220>  
 <221> CHAIN  
 <223> HA-tag

<400> 12  
 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala  
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<210> 13  
 <211> 311  
 <212> PRT  
 <213> Unknown

<220>  
 <221> CHAIN  
 <223> human VCIP

<400> 13  
 Met Gln Asn Tyr Lys Tyr Asp Lys Ala Ile Val Pro Glu Ser Lys  
 5 10 15  
 Asn Gly Gly Ser Pro Ala Leu Asn Asn Asn Pro Arg Arg Ser Gly  
 20 25 30  
 Ser Lys Arg Val Leu Leu Ile Cys Leu Asp Leu Phe Cys Leu Phe  
 35 40 45  
 Met Ala Gly Leu Pro Phe Leu Ile Ile Glu Thr Ser Thr Ile Lys  
 50 55 60  
 Pro Tyr His Arg Gly Phe Tyr Cys Asn Asp Glu Ser Ile Lys Tyr  
 65 70 75

Pro	Leu	Lys	Thr	Gly	Glu	Thr	Ile	Asn	Asp	Ala	Val	Leu	Cys	Ala	
				80					85					90	
Val	Gly	Ile	Val	Ile	Ala	Ile	Leu	Ala	Ile	Ile	Thr	Gly	Glu	Phe	
				95					100					105	
Tyr	Arg	Ile	Tyr	Tyr	Leu	Lys	Lys	Ser	Arg	Ser	Thr	Ile	Gln	Asn	
				110					115					120	
Pro	Tyr	Val	Ala	Ala	Leu	Tyr	Lys	Gln	Val	Gly	Cys	Phe	Leu	Phe	
				125					130					135	
Gly	Cys	Ala	Ile	Ser	Gln	Ser	Phe	Thr	Asp	Ile	Ala	Lys	Val	Ser	
				140					145					150	
Ile	Gly	Arg	Leu	Arg	Pro	His	Phe	Leu	Ser	Val	Cys	Asn	Pro	Asp	
				155					160					165	
Phe	Ser	Gln	Ile	Asn	Cys	Ser	Glu	Gly	Tyr	Ile	Gln	Asn	Tyr	Arg	
				170					175					180	
Cys	Arg	Gly	Asp	Asp	Ser	Lys	Val	Gln	Glu	Ala	Arg	Lys	Ser	Phe	
				185					190					195	
Phe	Ser	Gly	His	Ala	Ser	Phe	Ser	Met	Tyr	Thr	Met	Leu	Tyr	Leu	
				200					205					210	
Val	Leu	Tyr	Leu	Gln	Ala	Arg	Phe	Thr	Trp	Arg	Gly	Ala	Arg	Leu	
				215					220					225	
Leu	Arg	Pro	Leu	Leu	Gln	Phe	Thr	Leu	Ile	Met	Met	Ala	Phe	Tyr	
				230					235					240	
Thr	Gly	Leu	Ser	Arg	Val	Ser	Asp	His	Lys	His	His	Pro	Ser	Asp	
				245					250					255	
Val	Leu	Ala	Gly	Phe	Ala	Gln	Gly	Ala	Leu	Val	Ala	Cys	Cys	Ile	
				260					265					270	
Val	Phe	Phe	Val	Ser	Asp	Leu	Phe	Lys	Thr	Lys	Thr	Thr	Leu	Ser	
				275					280					285	
Leu	Pro	Ala	Pro	Ala	Ile	Arg	Lys	Glu	Ile	Leu	Ser	Pro	Val	Asp	
				290					295					300	
Ile	Ile	Asp	Arg	Asn	Asn	His	His	Asn	Met	Met					
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<210> 14  
 <211> 18  
 <212> PRT  
 <213> Unknown

<220>  
 <221> CHAIN  
 <223> lipid phosphatase domain of human VCIP

<400>	14														
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				5					10					15	
Ser	Val	Cys													

<210> 15  
 <211> 18  
 <212> PRT  
 <213> Unknown  
  
 <220>  
 <221> CHAIN  
 <223> a rat peptide containing lipid  
 phosphatase domain  
  
 <400> 15  
 Asp Ile Ala Lys Tyr Ser Ile Gly Arg Leu Arg Pro His Phe Leu  
                           5                          10                          15  
 Ala Val Cys  
  
 <210> 16  
 <211> 18  
 <212> PRT  
 <213> Unknown  
  
 <220>  
 <221> CHAIN  
 <223> a mouse peptide containing lipid  
 phosphatase domain  
  
 <400> 16  
 Asp Ile Ala Lys Tyr Thr Ile Gly Ser Leu Arg Pro His Phe Leu  
                           5                          10                          15  
 Ala Ile Cys  
  
 <210> 17  
 <211> 18  
 <212> PRT  
 <213> Unknown  
  
 <220>  
 <221> CHAIN  
 <223> a human peptide containing lipid  
 phosphatase domain  
  
 <400> 17  
 Asp Leu Ala Lys Tyr Met Ile Gly Arg Leu Arg Pro Asn Phe Leu  
                           5                          10                          15  
 Ala Val Cys  
  
 <210> 18  
 <211> 18

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<212>      PRT
<213>      Unknown

<220>
<221>      CHAIN
<223>      a Drosophila peptide containing lipid
              phosphatase domain

<400>      18
Asn Ile Ala Lys Tyr Ser Ile Gly Arg Leu Arg Pro His Phe Tyr
              5                      10                      15
Thr Leu Cys

<210>      19
<211>      18
<212>      PRT
<213>      C. elegans

<220>
<221>      CHAIN
<223>      a C. elegans peptide containing lipid
              phosphatase domain

<400>      19
Ile Val Thr Lys His Val Val Gly Arg Leu Arg Pro His Phe Leu
              5                      10                      15
Asp Val Cys

<210>      20
<211>      10
<212>      PRT
<213>      Unknown

<220>
<221>      CHAIN
<223>      a peptide containing RGD sequence

<400>      20
Asn Tyr Arg Cys Arg Gly Asp Asp Ser Lys
              5                      10

<210>      21
<211>      10
<212>      PRT
<213>      Unknown

<220>

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<221>      CHAIN
<223>      a peptide containing a mutated RGD sequence

<400>      21
Asn Tyr Arg Cys Arg Ala Asp Asp Ser Lys
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<210>      22
<211>      10
<212>      PRT
<213>      Unknown

<220>
<221>      CHAIN
<223>      a peptide containing a mutated RGD sequence

<400>      22
Asn Tyr Arg Cys Arg Gly Glu Asp Ser Lys
              5                      10

<210>      23
<211>      13
<212>      PRT
<213>      Unknown

<220>
<221>      CHAIN
<223>      a peptide containing RGD sequence

<400>      23
Asn Tyr Arg Cys Arg Gly Asp Asp Ser Lys Val Gln Glu
              5                      10

<210>      24
<211>      30
<212>      DNA
<213>      Artificial Sequence

<220>
<221>      primer_bind
<223>      forward primer for phosphatase inactive
              or dead form of PAP2b

<400>      24
gccggatcca tgcaaaacta caagtacgac          30

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<210> 25  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <221> primer\_bind  
 <223> reverse primer for phosphatase inactive  
 or dead form of PAP2b  
  
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 gaggagccag gcgccctatg gacactgcgg caat 34  
  
 <210> 26  
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 <221> primer\_bind  
 <223> forward primer for phosphatase inactive  
 or dead form of PAP2b  
  
 <400> 26  
 tgccgcagtg tccatagggc gcctggctcc tca 33  
  
 <210> 27  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <221> primer\_bind  
 <223> reverse primer for phosphatase inactive  
 or dead form of PAP2b  
  
 <400> 27  
 gcgatcgatc tacatcatgt tgtg 24  
  
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 <223> forward primer for N-terminal PAP2b truncation

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      <400>      28
gccg gatcca tgcaaaagcg ggtgctg      27

      <210>      29
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      <212>      DNA
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      <400>      29
ggtatcgata agcttctaca tcatg      25

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      <213>      Artificial Sequence

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      <223>      forward primer for C-terminal PAP2b truncation

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gccg gatcca tgcaaaacta caagtacgac      30

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      <211>      25
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      <400>      31
cgcgatcgat ctacgtcgtc ttagt      25

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      <213>      Unknown

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      <223>      a peptide containing a RGD sequence

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<400> 32  
Cys Arg Gly Asp Asp Ser  
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<210> 33  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> sense primer for human Alu sequence

<400> 33  
gttgcccaag ttggagtgc atgg 24

<210> 34  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> anti-sense primer for human Alu sequence

<400> 34  
acaatggctc acgcctgtaa tccc 24

<210> 35  
<211> 29  
<212> DNA  
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<220>  
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<223> sense primer for mouse GAPDH

<400> 35  
tggagtctac tgggtgtcttc accaccatg 29

<210> 36  
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<212> DNA  
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 <223> anti-sense primer for mouse GAPDH

<400> 36  
 gcaggagaca acctgggcct cagtg 25

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<220>  
 <223> amino acid sequence for apical sorting of PAP2a

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 Phe Asp Lys Thr Arg Leu  
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<210> 38  
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<220>  
 <221> UNSURE  
 <222> 2, 3, 4, 5, 6, 7  
 <223> lipid phosphatase motif of GST-VCIP-RGD  
 protein; Xaa is any amino acid at positions  
 2, 3, 4, 5, 6, 7

<400> 38  
 Lys Xaa Xaa Xaa Xaa Xaa Xaa Arg Pro  
 5

<210> 39  
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 <212> PRT  
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<220>  
 <223> motif of GST-VCIP-RGD protein

<400> 39  
 Pro Ser Gly His

<210> 40  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <221> UNSURE  
 <222> 3, 4, 5, 6, 7, 9, 10, 11  
 <223> motif of GST-VCIP-RGD;  
 Xaa is any amino acid at positions  
 3, 4, 5, 6, 7, 9, 10, 11

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 Ser Arg Xaa Xaa Xaa Xaa Xaa His Xaa Xaa Xaa Asp  
 5 10

<210> 41  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> amino acid sequence in peptide derived  
 from VCIP

<400> 41  
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 5

<210> 42  
 <211> 37  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> amino acid sequence of PAP2b in the  
 pGst-PAP2b-C-cyto construct

<400> 42  
 Ser Asp Leu Phe Lys Thr Lys Thr Thr Leu Ser Leu Pro Ala Pro  
 5 10 15  
 Ala Ile Arg Lys Glu Ile Leu Ser Pro Val Asp Ile Ile Asp Arg  
 20 25 30  
 Asn Asn His His Asn Met Met  
 35